

The diabetic hand: a forgotten complication

M S Merad¹, Z. Benzian¹, F. Mohammedi¹, A. Benouis².

(1) Endocrinology and Diabetology Service -Laribere Clinic –university Hospital Dr Benzerdjeb Oran (Algéria).
 (2) Biology Laboratory of Developmental and Differentiation university ES-Senia Oran(Algéria).

Background and aims

The diabetic hand infection is less reported in the literature. Therefore, it is easily ignored and underestimated resulting in increased morbidity among the diabetic population. Diabetic hand is a rapid in progression, extensive and severe tissue destruction, the aim of our study is to determine the clinical, bacteriological and therapeutic characteristics of hospitalized patients.

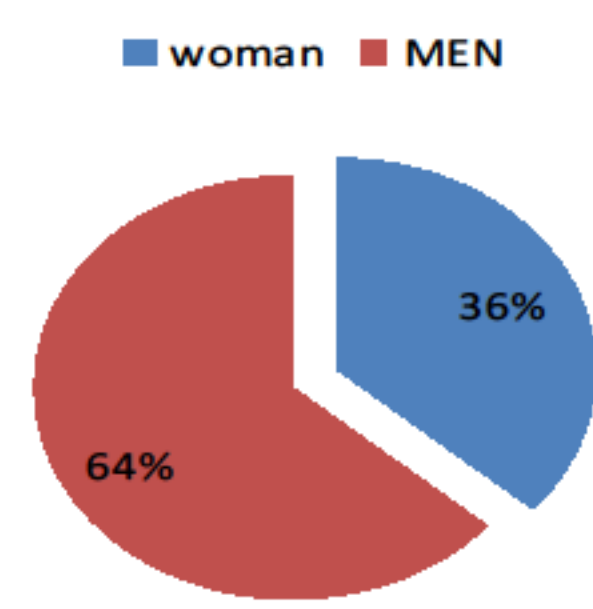


Different lesions of diabetic hand

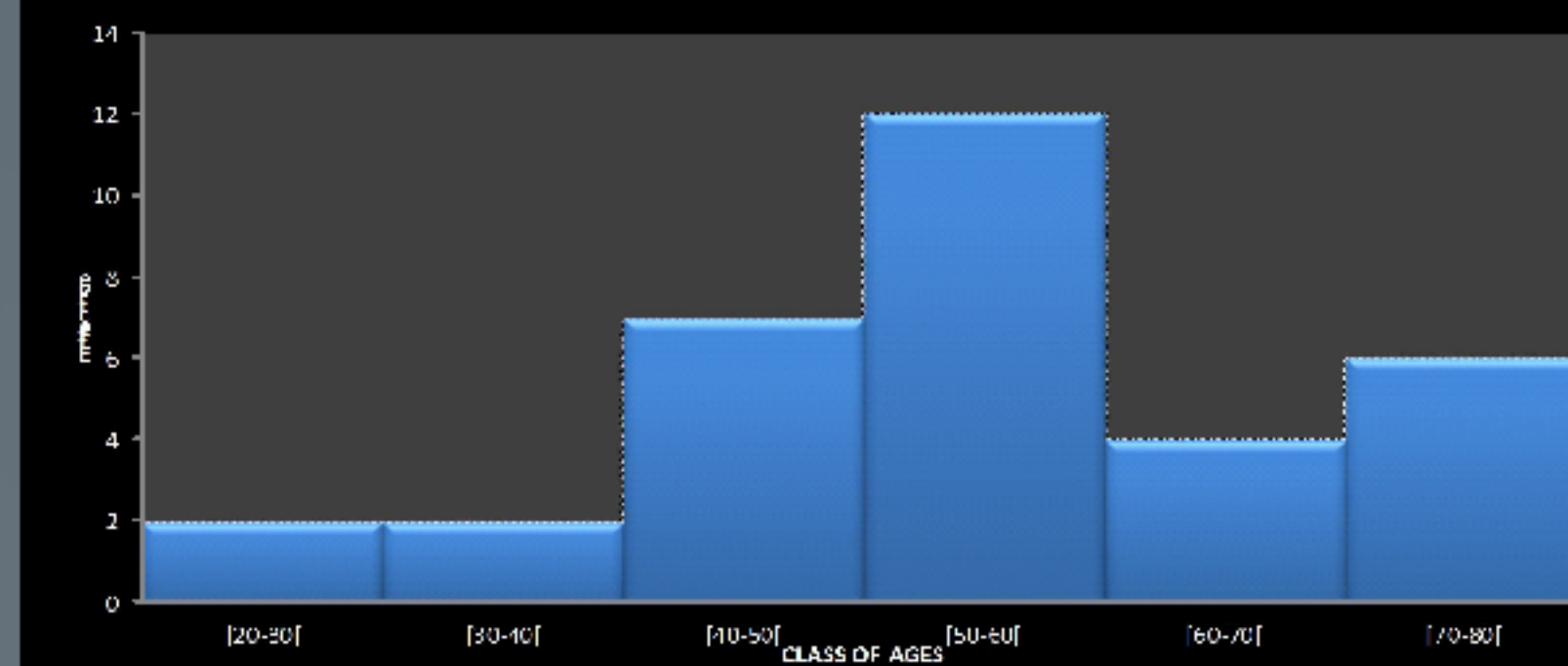
Materials and methods

All hand infection patients admitted to the department of Diabetes and Endocrinology at University Hospital Center of Oran during 10 years were reviewed retrospectively. A hand infection was defined as any infection of the upper extremity in hospitalized diabetic patients. 33 patients with hand infection were found. Their etiology identified from clinical history and examination, number of operations and management, hospital stay and outcome-like amputation were recorded. Data collected were entered into a computer database using IBM SPSS Statistics 20 and analyzed using the same application.

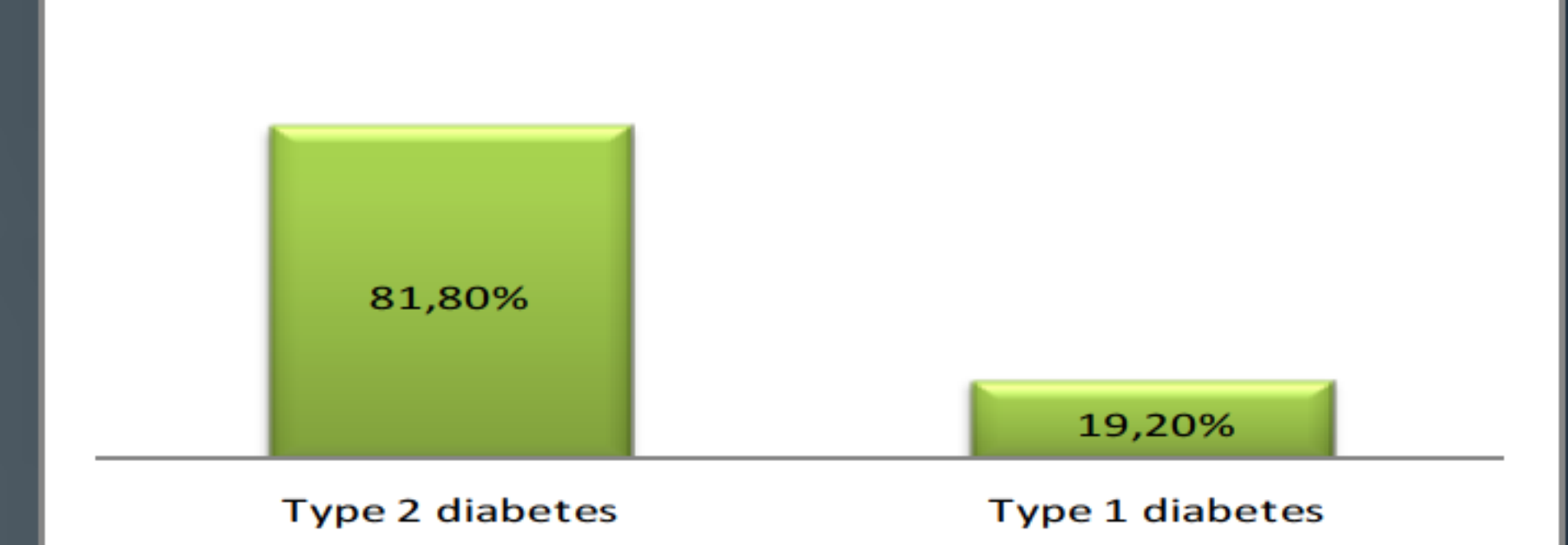
DISTRUBITION ACCORDING TO GENDER



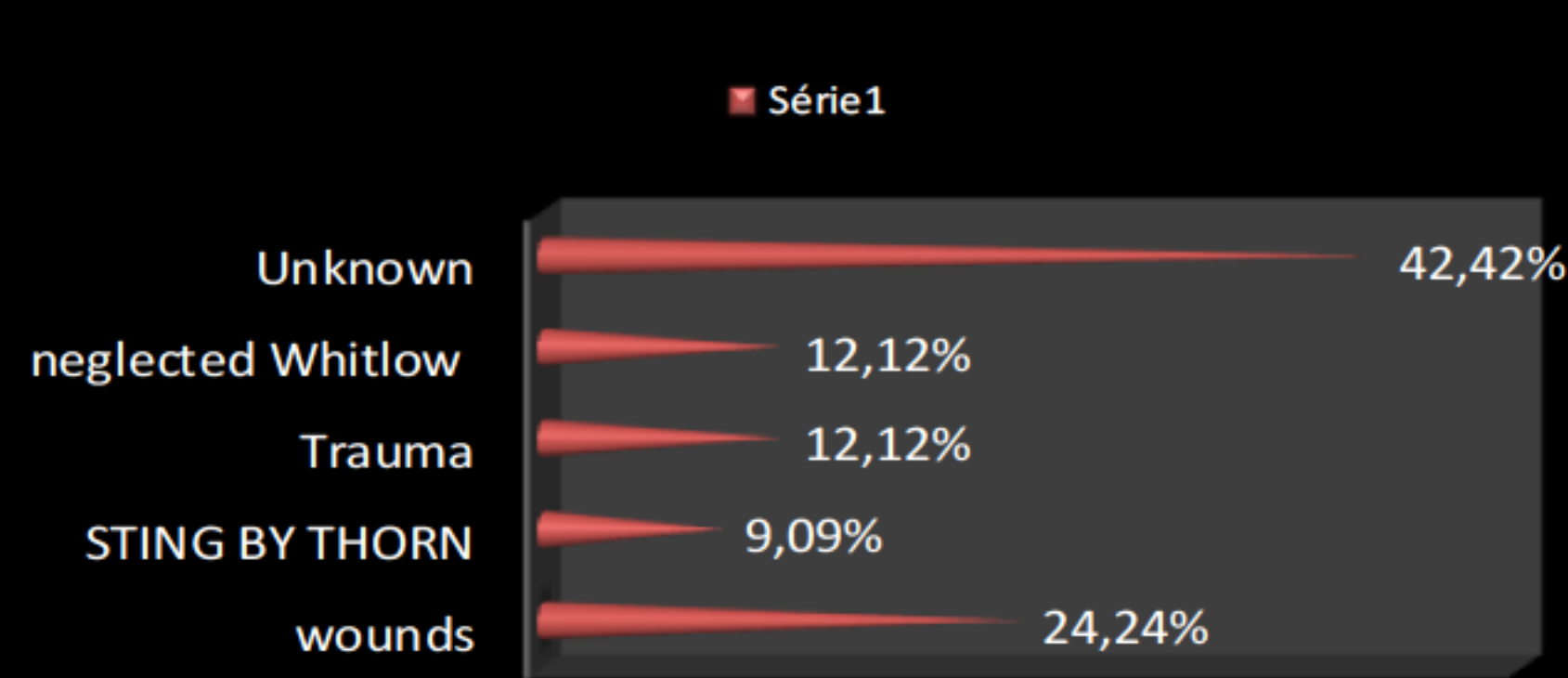
DISTRIBUTION ACCORDING TO AGE



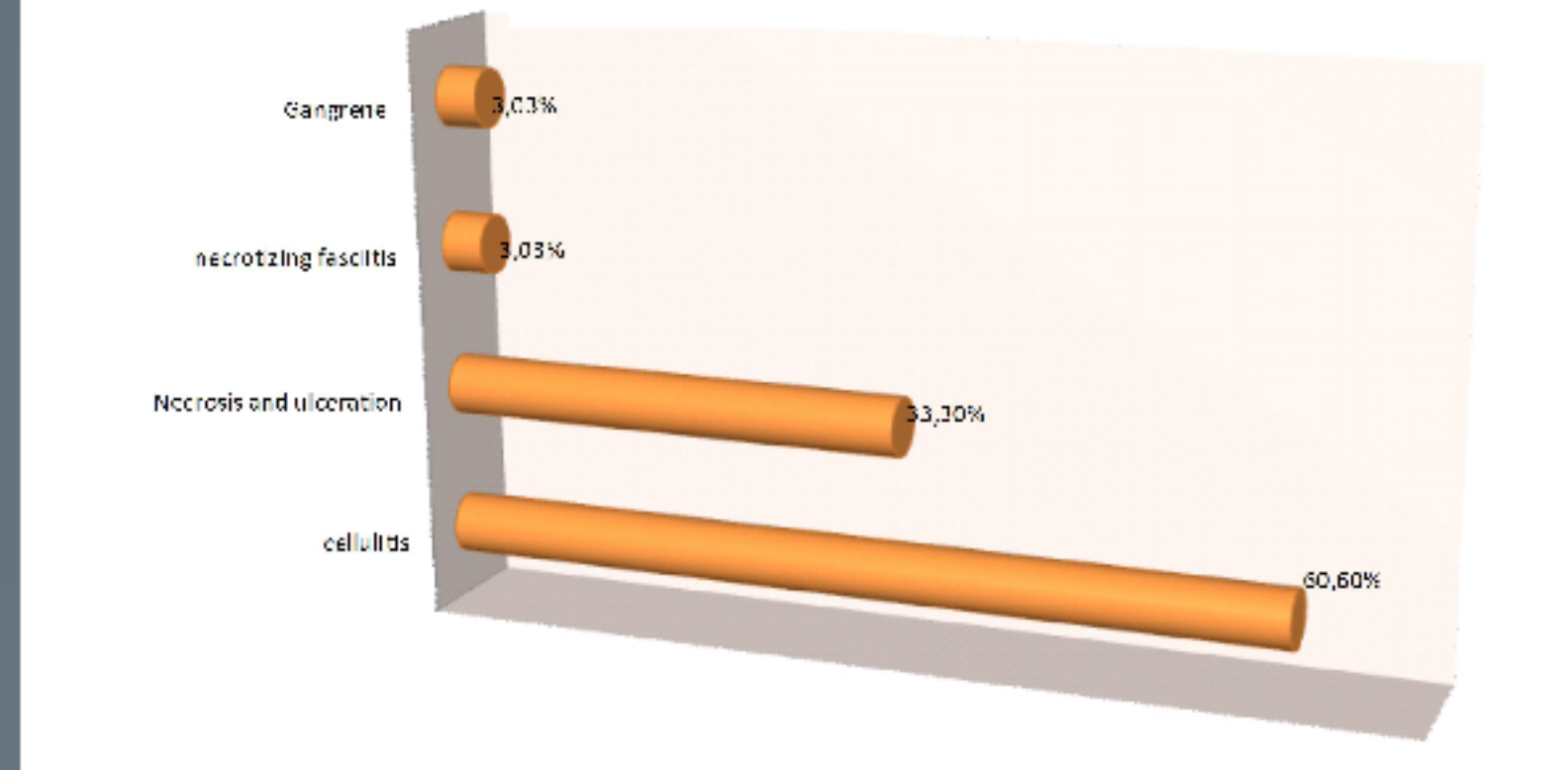
TYPE OF DIABETES



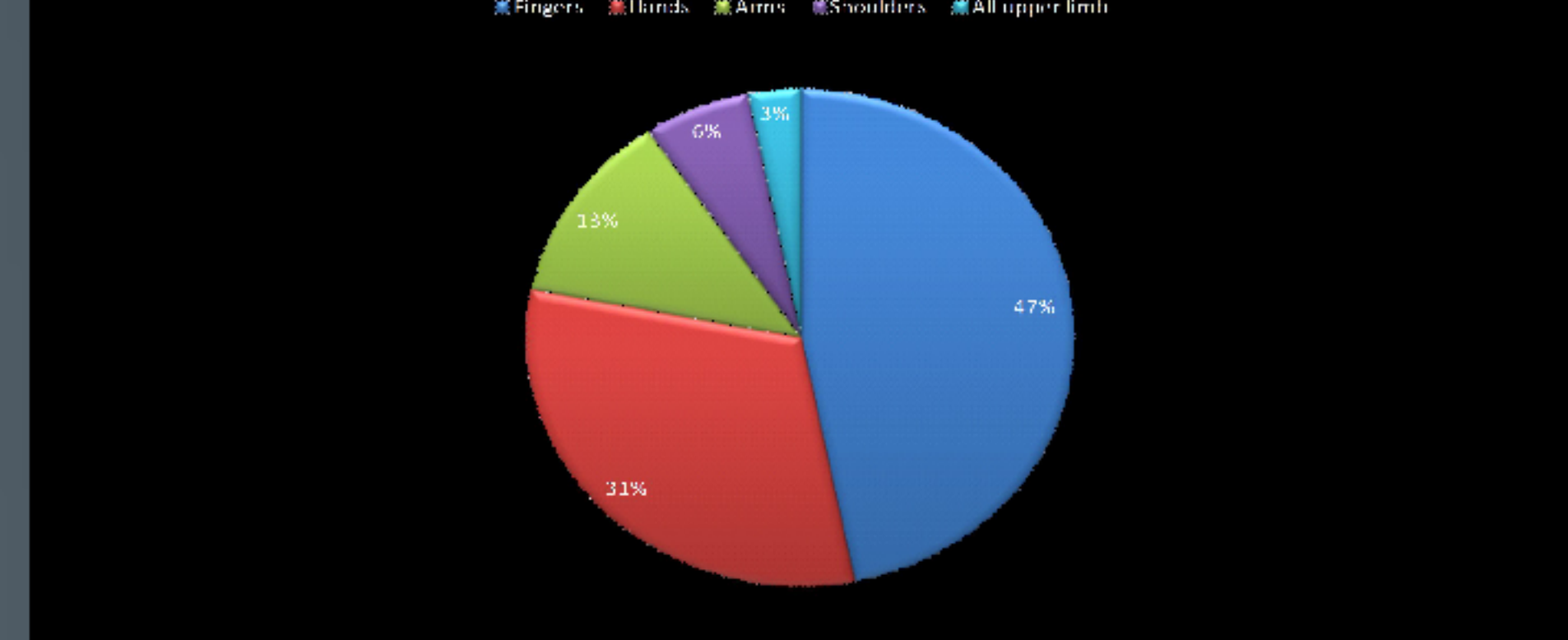
CAUSES OF LESIONS



NATURE OF INJURIES



TOPOGRAPHIES OF LESIONS



Consultation periods	Duration of hospitalization	Cure without amputation	Minor amputation	Mortality
18,39 ± 4 ,57 Days	26 ± 3,20 Days	78,78 %	21,21 %	0%

Discussion

Infection of diabetic hand is little reported in the literature. Therefore, it is easily overlooked and underestimated which leads to an increase in morbidity among the diabetic population. It results from the rapid destruction, progressive, broad and severe tissue. Recent reports show an increase of less than 5% in 1970 to over 10% in 1999 in the incidence of diabetes in patients who required hospitalization for severe infection of the hand.

In our study damage of the hand are predominant in diabetic man, which could be explained by the made in North Africa they are most at risk of manual labor. We find a mean age of 54 ± 2.44 years, which is less than the estimated diabetic foot in our service to 64 ± 14 years. A diabetes duration 10.56 ± 1.28 years with a leading diabetes Type 2 which shows that the seniority of diabetes and its imbalance plays a major role in this disease.

In most cases, the causes are unknown origin but could be minor injuries unrecognized by patients at the origin of this infection. Prompt medical attention and good control of blood glucose levels is crucial because a hyperglycemic state precipitated infection and delays healing. In its turn, the infection augment blood glucose.

Houshian et al. in their study involving 418 patients with hand infection reported an increase by 6 in the diabetic group compared to non-diabetic. A violation of the fingers is the most common location, it is estimated at 50 and 60% in most series which matches with our results (47% of hospitalized cases).

The frequency of cellulitis in our patients may be explained by the delay in the consultation. A local-regional or general extension of infection leads to amputation in 21.21% of cases .This rate is lower than that observed by Sidibe At et al. in Mali (30%),. In our study, the low incidence of amputation is due to multiple debridement and an aggressive approach to the management of the infection. No deaths reported in our series of study.

Conclusion

Diabetic hand involves persons in active life period relatively in younger age group. Undiagnosed or uncontrolled diabetes is major contributory factor. Health Education, early diagnosis & prompt treatment in specialized units may be helpful.